
II. Transportation Inventory

Introduction

A. Requirements

The Growth Management Act [RCW 36.70A.070(6)(A)] requires an inventory of air, water, and land transportation facilities and services, including transit alignments, and general aviation facilities, to define existing capital facilities and travel levels as a basis for future planning. This document fulfills this requirement by describing King County's multi-modal transportation system and by identifying available resource materials.

B. Process

The County's approach to the inventory construction is that of reference, rather than collection. This approach will enable planners to evaluate inventory information and determine what data will best meet their studies' requirements.

C. Coordination

The regional coordination of land use and transportation is mandated by the Growth Management Act. King County has taken an active role in assuring a regionally coordinated transportation system. In cooperation with other central Puget Sound jurisdictions, King County is striving towards a regional approach to important planning issues such as, level of service, concurrency, siting of regional and countywide transportation facilities, financing, nonmotorized transportation, and Transportation Demand Management.

D. Organization

The inventory is organized into three categories—(1) an inventory of the air transportation facilities and services; (2) an inventory of marine transportation facilities and services; and (3) an inventory of land transportation facilities and services.

Air Transportation System

The Growth Management Act requires an inventory of the air transportation system to define existing capital facilities and travel levels as a basis for future planning. The air transportation system plays an important role as part of the regional transportation network because it provides for quick and efficient intrastate, interstate, and international travel of passengers and freight.

In 1996 the Metropolitan Transportation Plan was amended to address the region's long term commercial air transportation needs with approval of planning for a third runway at Sea-Tac. Meanwhile, it's been 12 years since the region prepared a comprehensive plan for its general aviation airport system. The Regional Council is beginning a planning process which will address a number of system planning and development issues affecting the region's airports. This process will result in a refinement of the *1988 Regional Airport System Plan (RASP)*. The Regional Council will complete the technical work on the RASP by the end of the year 2000. The refined RASP will be integrated into the updated Metropolitan Transportation Plan (MTP) as its *Regional Aviation System* component. The updated MTP is scheduled for adoption in May 2001.

A. Existing Capital Facilities

The PSRC regional airport system consists of 28 public use airports and 2 military airfields, and includes the region's primary commercial service airport: Sea-Tac International. The system includes McChord Air Force Base and Gray Army Airfield (Fort Lewis), both in Pierce County. There are five reliever airports in the region: Snohomish County Airport/Paine Field, Harvey Field, King County International Airport/Boeing Field, Renton Municipal, and Auburn Municipal. The region's largest and busiest airports include Boeing Field (King County International), Paine Field (Snohomish County/Everett), Renton Municipal, Arlington Municipal, Harvey Field, Crest Airpark, Thun Field, Auburn Municipal, and Bremerton National. In addition to their regional role in the general aviation airport system, Boeing Field, Paine Field, and Renton Municipal each play a critical role in the Boeing Company's aircraft production, test flight, certification, and aircraft delivery programs.

Based on 1998 data collected by the WSDOT Aviation Division, the region's general aviation airports ranged in size from Darrington, with two based aircraft, to Arlington, with 498. In 1998 the region's 30 airports (including Sea-Tac) contained over 3,600 based aircraft, and served over 2 million annual aircraft operations. Our region's largest airports are major employment and economic centers, and serve as home base for the Boeing Commercial Airplane Company, contributing to the production of over half the world's civilian jet aircraft.

The region's two main cargo airports (Sea-Tac Airport and Boeing Field) are experiencing strong growth in air cargo. Between 1985 and 1998 total air cargo at these two airports grew from 210,000 to 613,000 metric tons, or 192%. While this regional airport system plan will not revisit the master plans for either Sea-Tac Airport or Boeing Field regarding air cargo facility development, the RASP will consider how the strong air cargo growth at these two airports might affect the remaining airports in the system, particularly the relievers.

Attachment A lists the airports in King County. Attachment B shows a map of the regional airport system.

B. Future Demand

The PSRC is currently updating the Regional Airport System Plan (RASP). The plan is expected to be ready in the fall of 2000. The plan will examine demand, facilities, and costs both systemwide and for individual airports. The inventory, background information, trends, forecasts, and system needs have been completed. The Federal Aviation Administration (FAA) is currently reviewing the forecasts. Costs will be developed in the near term.

Passenger Forecasts

This forecast is a summary of the most recent passenger forecasts prepared for airports with commercial passenger service, either scheduled or unscheduled (charter). Airports with existing passenger service include American Lake, Boeing Field, Kenmore Air Harbor, Lake Union Air Service, Sea-Tac International Airport, and Will Rogers/Wiley Post Floatplane Base. Only Sea-Tac Airport and Boeing Field have scheduled passenger service. The other four airports listed below provide unscheduled/charter passenger service. Future passenger forecasts are available only for Sea-Tac International Airport and King County International Airport/Boeing Field. These forecasts are shown below. The forecasts for Sea-Tac International Airport shown below were derived from the *Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions* (May 1997). The forecasts for Boeing Field were taken from *Master Plan Working Paper One* (September 1999). As stated in the working paper, the "....unconstrained demand for commercial passenger activity at the airport recognizes that [while].... there is demand for passenger services, at the present time, no airline is proposing a significant commercial passenger operation at the airport, and that no new facilities are programmed to accommodate such growth."

Passenger Forecasts

(includes both enplaning and deplaning passengers)

	1998	2005	2010	2015	2020
American Lake	7,140	N/A	N/A	N/A	N/A
Boeing Field	4,026	76,400	154,000	178,600	N/A
Kenmore Air Harbor	29,500	N/A	N/A	N/A	N/A
Lake Union Air Service	19,100	N/A	N/A	N/A	N/A
Sea-Tac International	*25,863,132	31,400,000	35,800,000	40,200,000	44,600,000
Will Rogers/Wiley Post	8,740	N/A	N/A	N/A	N/A
Total	25,931,638	31,476,400	35,954,000	40,378,600	44,600,200

* Year 2015 passenger forecast for Sea-Tac Airport was interpolated by PSRC

Air Cargo Forecasts

The following air cargo forecasts were taken from the most recent airport master plans and other supporting data for Sea-Tac International Airport and King County International Airport/Boeing Field. These include the Sea-Tac Airport Master Plan (1994), Sea-Tac Final Supplemental EIS (May 1997) and Boeing Field Master Plan Working Paper One (September 1999). Boeing Field's latest airport master plan forecast extends to 2015, while the Port of Seattle's official forecast for Sea-Tac Airport extends to the year 2010.

Air Cargo Forecasts (U.S. tons)

(includes both enplaned and deplaned cargo)

	1998*	2000**	2005**	2010**	2015**
Boeing Field	142,000	155,364	194,540	243,595	305,000
Sea-Tac Int'l	471,099	559,900	683,100	805,200	N/A
Total:	613,099	715,264	877,640	1,048,795	

*Numbers were derived from Sea-Tac Airport Activity Report (1998) and Boeing Field Master Plan Working Paper One (1999); numbers for Boeing Field are for calendar year 1997.

**Forecasts for 2000, 2005, 2010, and 2015 were taken from the "Final Supplemental EIS for the Proposed Master Plan Update Development Actions at Sea-Tac Airport" (May 1997) and the Boeing Field "Master Plan Working Paper One" (September 1999).

Source: Data were derived by Puget Sound Regional Council from FAA, WSDOT Aviation Division, individual airport master plans, and other sources. The information is contained in the ongoing PSRC Regional Airport System Plan.

Additional information on the air transportation system can be found at the following links:

Washington State Aviation Division:

<http://www.wsdot.wa.gov/Aviation/Planning/database/default.cfm> (select King County under "Filters")

Port of Seattle Airport Statistics:

<http://www.portseattle.org/factstat/stats/air/default.htm>

PASSENGERS	May-03	May-02	Amt Change	% Change	2003	2002	Amt Change	% Change
Domestic Passengers - IN	1,030,183	1,021,801	8,382	0.82	4,517,287	4,500,181	17,106	0.38
Domestic Passengers - OUT	1,011,060	1,013,462	-2,402	-0.24	4,489,113	4,517,724	-28,611	-0.63
Subtotal - Domestic Passengers	2,041,243	2,035,263	5,980	0.29	9,006,400	9,017,905	-11,505	-0.13
International Passengers - IN	88,026	94,654	-6,628	-7	436,464	469,893	-33,429	-7.11
International Passengers - OUT	87,918	94,340	-6,422	-6.81	423,494	453,395	-29,901	-6.59
Subtotal - International Passengers	175,944	188,994	-13,050	-6.9	859,958	923,288	-63,330	-6.86
Total Passengers - IN	1,118,209	1,116,455	1,754	0.16	4,953,751	4,970,074	-16,323	-0.33
Total Passengers - OUT	1,098,978	1,107,802	-8,824	-0.8	4,912,607	4,971,119	-58,512	-1.18
PASSENGER GRAND TOTAL	2,217,187	2,224,257	-7,070	-0.32	9,866,358	9,941,193	-74,835	-0.75

Source: Port of Seattle, actual passenger activity, May 2003

Marine Transportation System

The Growth Management Act requires an inventory of the marine transportation system to define existing capital facilities and travel levels as a basis for future planning. The marine transportation system plays an important role in the movement of people and goods within King County, supplying the main commuter link between Seattle's central business district and the west Puget Sound corridor and as the hub network for local, regional and international freight movements. The marine transportation system will continue to play an increasingly important role as population densities increase and our County's economic base expands.

A. Existing Passenger Capital Facilities

The marine passenger transportation system serves the entire Puget Sound region from Tacoma to Sidney B.C. The facilities that serve King County include ferry terminals and vessels servicing ferry routes. The following Figure III-1 provides an inventory of existing terminals, vessels and routes operated by the Washington State Ferry System within King County.

Figure III-1
Washington State Ferry System and Related
Capital Facilities within King County

Route	Terminal	Vessel Type	Number	Capacity
Seattle-Bainbridge Is. (Passenger Only)	Seattle - Bainbridge Is	Tyee	1	270*
Seattle-Bremerton (Passenger Only)	Seattle Bremerton	Snohomish	1	350 **
Seattle-Bremerton	Seattle Bremerton	Issaquah Jumbo Mark II Class	1 1	130* 230*
Seattle – Vashon (Passenger Only)	South Vashon	Skagit/Kalama	1	270 **
Fauntleroy-Vashon Southworth Port Defiance- Talequah	Fauntleroy Vashon Vashon Southworth Port Defiance- Talequah	Expanded Issaquah Issaquah Rhododendron	1 1 1	130* 130* 65*
Seattle-Bainbridge Is.	Seattle - Bainbridge Is	Jumbo Mark II Class Issaquah Class	1 1	218* 130*
Seattle-West Seattle# (Passenger Only)	Seattle – West Seattle	Catamaran	1	82**

* Automobile carrying capacity

** Person carrying capacity

#Operated by King County Metro Transit and contracted through Argosy Cruises
(<http://www.argosycruises.com/>)

Source: Cross-Sound Analysis for Washington State Ferries

Additional information on the Washington State Ferry system can be found at the following web sites:

<http://www.wsdot.wa.gov/ferries/>,
<http://www.wsdot.wa.gov/ferries/schedules/current/index.cfm?route=sea-bi>,
http://transit.metrokc.gov/tops/oto/water_taxi.html or:

Please contact the ferries division for information on future passenger service needs and improvements:

Washington State Department of Transportation
Washington State Ferries
2911 Second Ave.
Seattle, Washington 98121-1012

B. Existing Freight Capital Facilities

The Port of Seattle has been upgrading container terminal operations to accommodate on-dock rail loading and unloading to improve efficiency in operations. Two major considerations affecting shipping and the movement of freight are the initiation of service by the Post-Panamax container megaships. Both the Port of Seattle and the Port of Tacoma can accommodate a vessel of this size and draft. Megaship activity can result in more pronounced peaking of port handling and management of freight and containers to midwestern destinations and other domestic sites nationally. Completion of the Duwamish Access study by the Port and City of Seattle also highlighted concerns in the Duwamish industrial area over the deteriorating conditions of the transportation infrastructure and many of the needed improvements to ensure the Duwamish's viability.

The second consideration affecting marine transportation relates to landside freight traffic. Landside traffic congestion has become a major concern of the ports and is affecting access to the ports. Freight rail between the Ports of Seattle and Tacoma as well as around the Port of Everett is the other major concern affecting the movement of freight through the County and region. To address this concern a partnership of the ports, the railroads, the state, and cities and counties developed the strategy referred to as the FAST Corridor that will both improve freight traffic getting to port facilities and also reduce conflicting and crossing traffic by providing the elevated structures to cross over the major conflict points.

The port access and grade separation improvements identified as part of the FAST Corridor effort are moving towards implementation and will help to reduce the conflicts that inhibit efficient connections to the waterside port facilities or the conflicting general traffic crossing the railroad tracks on major arterials in the Green River Valley. Within King County improvements at SR 519, S 180th Street in Tukwila, and S 277th Street and 3rd Street SW in Auburn are underway.

Phase II of the FAST Corridor effort is already underway to examine and reaffirm a second tier of improvements needed to make freight traffic more effective in the future. The Phase II effort will also examine the movement and circulation of freight trucking and will lead to the development of actions and improvements necessary to maintain the county and region's position in trade and a global economy.

For the most current information on the FAST Corridor project please refer to the following website:

<http://www.wsdot.wa.gov/mobility/fast/>

Efforts to engage the private sector and freight community in governmental and public actions in the region have gained national attention and recognition. The Freight Roundtable, established by the Economic Development Council of Seattle and King County, and the PSRC has been presented as an effective model of cooperation and working together to address the complex issues affecting freight transportation. Coordination with the Washington Transportation System Plan and the Metropolitan Transportation Plan has been and continue to be essential elements of the discussion.

C. Future Demand Freight Services

See the Port of Seattle website for historical growth on shipping tonnage and TEUs (20-foot equivalent unit containers):

<http://www.portseattle.org/harbor/default.htm>

D. Freight Needs, Improvements, Timing

Projects identified in the list of Referendum 49 improvements included recommendations for funding extending SR 509 to I -5 and the South Access Road both in the vicinity of Sea-Tac Airport. Improvements to SR 519, SR 18 and the Valley Freeway, as well as Pacific Highway, and a number of projects would have provided a major infusion of funds until I - 695 and R-51's failure at the polls in November 2002 effectively eliminated the source of repaying the bonds and for capacity projects. Some funding has been found to keep the most important projects moving forward; however full funding and timing of funding will still be important considerations in the future. As of July 1, 2003 a 5 cents per gallon gas tax went into effect throughout Washington State which will raise \$4.18 billion over 10 years.

Port of Seattle Harbor Statistics can be found at:

<http://www.portseattle.org/harbor/default.htm>

Land Transportation System

A. Vision 2020 / Metropolitan Transportation Plan (MTP)

Vision 2020 is a multi-jurisdictional cooperative long-range plan that emphasizes the interdependence between growth and transportation. It recognizes that the problems caused by uncontrolled growth are regional and must be answered on a cooperative basis. The plan identifies growth and transportation strategies for the central Puget Sound region – King, Kitsap, Pierce and Snohomish Counties. The essence of the plan is to encourage high-density growth in designated Metropolitan Centers, sub-regional centers, and activity clusters, connected by a transportation system that emphasizes the movement of people. The 1995 Metropolitan Transportation Plan updates Vision 2020 by providing a growth management, economic, and transportation strategy.

The Puget Sound Regional Council is the designated Metropolitan Planning Organization (MPO) for the counties of King, Kitsap, Pierce, and Snohomish. MPOs are responsible for the planning of regional transportation systems, as required by Federal Highway and Urban Mass Transit statutes. The Growth Management Act further requires urban counties and cities within them to form Regional Transportation Planning Organizations (RTPO) that encompass, at a minimum, at least one county with a population of 100,000 or more. The Puget Sound Regional Council is the assigned RTPO for the four county region, reaffirming Vision 2020 as the foundation for a cooperative, comprehensive planning effort between jurisdictions within central Puget Sound.

B. King County Planning

King County's planning process includes the Comprehensive Plan, other planning documents, and regulations.

1. Comprehensive Plan

King County's Comprehensive Plan consists of policies and maps to guide growth and development in unincorporated King County and to establish the County's position on Countywide services.

The Comprehensive Plan emphasizes regional planning and inter-governmental cooperation between King County, its cities, neighboring counties, special purpose districts, and other public agencies. It outlines the basic plan and process to assure that adequate public facilities and services are available to meet the demands of growth.

2. Transportation Needs Report

The Transportation Needs Report (TNR) is an annual listing of recommended countywide transportation system improvements. It includes all transportation needs in unincorporated King County and significant countywide improvements in cities and adjacent counties. Transportation projects are grouped by geographic subareas and type of improvement.

The TNR's principal use is to assist in the formation of the County's Capital Improvement Program including a six-year road planning program. These programs set the schedule for phasing of multi-year projects and specify the order and timing of planned transportation improvements.

The TNR promotes coordination between King County and other jurisdictions by clearly showing what projects the County intends to initiate and the priority of individual projects, allowing other jurisdictions to schedule related improvements to coincide with County work.

The TNR is also a major source for information used in determining appropriate mitigation measures required for approval of proposed new development. The County's Mitigation Payment System (MPS) uses the TNR to identify growth projects within a multi-year funding horizon to calculate fair share payments for new development.

C. Population, Household and Employment Data

Population, household and employment estimates by census tract are prepared by the Puget Sound Regional Council for King County, other member governments and the private sector. The Regional Council interprets Washington State Office of Financial Management demographics using two modeling programs. Household forecasts are produced using the Disaggregate Residential Allocation Model (DRAM) and employment forecasts are produced using the Employment Allocation Model (EMPAL).

1. Population and Housing Estimate Report

Prepared annually, the Population and Housing Estimate Report summarizes residential building and demolition permit statistics for the preceding calendar year, anchored upon the housing and population data from the latest U.S. Census of Population and Housing and Washington State Office of Financial Management. The report is designed to provide demographic trends by small geographic area for use by local governments as well as data users in the private sector. Estimates of housing units, vacancy rates and average persons per occupied dwelling units are supplied in the report.

2. King County Annual Growth Report

The Annual Growth Report (AGR) provides population and land development statistics for King County. The Annual Growth Report has two purposes. The first is to present a standard set of data on growth in King County. The AGR answers questions about where, when and how much growth is occurring in King County. The County's Office of Regional Policy and Planning collects the information used in the AGR. The AGR provides a foundation for evaluating King County's land use and development policies. The AGR is an essential tool for monitoring the effectiveness of the County policies and plans.

The AGR report provides extensive data that includes estimates of population and employment, business and household income, counts of household and housing units, house prices and rents, annexations, commercial and residential building permits, formal subdivision and short plats, and forest practices activity.

Population data and forecasts contained in the AGR come from three primary sources: the Washington State Office of Financial Management, the U.S. Bureau of the Census, and the Puget Sound Regional Council.

Land use data comes from King County and cities within the County. Household data is based on information maintained by the King County Department of Assessments. Additionally, King County's Department of Development and Environmental Services compiles housing data through permit review applications. The Office of Regional Policy and Planning also has the ability to summarize data on building permits and formal plats from each city within King County.

Average house price and rent data are summarized in the Seattle-Everett Real Estate Research report (SERER) and in the AGR. House sales price and apartment rental data are gathered from both private sector and public sector sources.

D. Road System (King County)

1. Functional Classification

For information on the King County Arterial Functional Classification system, see the previous section.

2. Regional Arterial Network (RAN)

The Regional Arterial Network (RAN) is an integrated system of roads and services critical to moving people and goods in King County. The RAN is derived from the Puget Sound Regional Council's Metropolitan Transportation Plan, and is comprised of principal arterial streets that connect important land use centers. The RAN approach encompasses growth management and a capital investment strategy to improve mobility to and among designated land use centers. The RAN is based on partnerships with local jurisdictions and stresses a regional, multi-modal approach to providing coordinated improvements along arterials.

3. Road Log

The County Road Log represents a detailed "inventory" of selected physical and administrative features of the county's roadway system. Physical features are typified by such items as pavement type, roadway and shoulder width, number of lanes, median pavement type, as well as traffic counts. Administrative features include information such as functional class, urban area, and jurisdiction. This information is available from the King County Department of Transportation, Engineering Services Section of the Road Services Division.

4. Road Network Information System (RNIS)

The Road Network Information System provides a method of locating, quantifying, and assessing the condition of each roadway owned or maintained by King County. This Inventory system is maintained by the roads maintenance staff and is used as a basis for projecting County road maintenance needs. Individual roadways and their features are described using a route order system. This is the same system used for County sign maintenance. Under the route order system, each roadway or route is assigned a numeric definition indicating the start and end of the route. Each route begins with a sequence number which indicates a cross street. Distance measurements are taken from the cross street in the direction of increasing address numbers.

5. Pavement Management System

The Pavement Management System is used by King County's Road Maintenance Section to track and rate roadway surface conditions and record information concerning shoulder width and type. The System divides the County's 1800 plus miles of road into over 30,000 individual segments. Each roadway segment is rated and evaluated bi-annually to ensure a continuous preventative maintenance program and track the effectiveness of maintenance activities.

6. Traffic Signals

An inventory of traffic signals is kept at the offices of the Traffic Section, King County Department of Transportation, Roads Services Division. The inventory includes:

- Location of signals
- Type
- Operating parameters
- Programmed phases/cycles

Specific information regarding intersection control devices (signage, signals) can be obtained by contacting the King County Department of Transportation, Road Services Division, Traffic Section.

7. Traffic Counts

Scheduled vehicular traffic counts have been obtained at selected locations on the County Road System for many years and are published by and available from the King County Department of Transportation, Road Services Division. The latest version of this document is titled Historical Traffic Counts 1989 - 1999.

Traffic counts are also available at <http://www.metrokc.gov/kcdot/roads/traffic/>

8. High Occupancy Vehicle Facilities

The High Occupancy Vehicle (HOV) system is an important element of King County's and the region's multi-modal transportation system. The HOV system is made up of special lanes for use by transit, carpools, and vanpools, on the region's freeway and arterial network. Capital facilities such as park-and-ride lots, bypass ramps, flyer stops, and transit centers for buses, are an integral part of the HOV system. Coupled with the County's Transportation Demand Management program, HOV facilities are designed to help accommodate growth by moving more people in fewer vehicles, reducing the need for new road construction or major widening projects on the County's existing arterial system. Since the early 1980's, PSRC's regional transportation policy has emphasized the benefits of reduced congestion, air pollution and energy savings associated with a

comprehensive HOV system. Recent changes to the HOV lane system include direct access ramps to support Sound Transit's regional bus service as well as freeway-to-freeway improvements to interconnect the system. Please refer to WSDOT's publication "Puget Sound Freeway CORE HOV Program: Status, Performance, Questions & Answers" (printed January 2000) for a list of existing and planned State HOV facilities.

a. HOV Lanes

In the early 1970's, the first HOV road segments were completed on Washington State highways. Today, over 190 lane miles of operating HOV facilities are available for use in King County by transit, carpools (two or more passengers per vehicle), and vanpools (eight or more passengers per vehicle). There is much discussion and planning underway to convert or expand certain segments of HOV lanes to HOT or High Occupancy Toll lanes. In the spring of 2003, the State Legislature opened up HOV lanes outside of the I-5 corridor to general traffic from 7PM to 5 AM.

For more information on HOV facilities in King County, please refer to WashDOT's website: <http://www.wsdot.wa.gov/hov/default.htm>

b. Transit Flyer Stops

There are sixteen transit flyer stops within King county along the interstate and state highway system. These stops speed transit travel by allowing riders access, without the bus having to exit and return to the interstate or highway on congested arterials. (For a full list of flyer stops and their locations, see Attachment C.)

c. Transit-Oriented Development (TOD)

The King County Transit Oriented Development (TOD) Program began in 1998. In 1999, the county retained Economics Research Associates (ERA) to rank park-and-ride sites from a private development perspective. Based upon that ranking and subsequent analyses by TOD and Metro staff, TOD projects have been undertaken throughout King County. Three projects are completed, one is under construction, developers have been selected for five, feasibility studies are under way for 11 projects and initial discussions are going on for five. This report includes information on TOD projects and some related efforts being managed by the county's Department of Construction and Facilities Management (DCFM) and by Sound Transit. A list of current and proposed TOD facilities in King County is listed in Appendix C.

Source: <http://www.metrokc.gov/kcdot/alts/tod/TODstatus3-02.htm>

d. Park and Ride Lots

A park and ride lot is a designated passenger facility where individuals can leave their private vehicles to access public transportation. A park and ride lot can also serve as a park and pool lot, where individuals can rendezvous to form carpools and vanpools. King County owns or manages three kinds of park and ride facilities. Currently there are 89 permanent and leased lots in King County, with a total of 19,141 parking stalls.

King County Metro Transit 1st Quarter 2003 Park-and-Ride-Lot Utilization Report

Park-and-Ride Lots	Capacity	Used	Percentage
Permanent Lots	16,732	13,060	78%
Leased Lots	2,409	1,071	44%
SYSTEM TOTALS	19,141	14,131	74%

*Capacity is measured in number of total of parking stalls or spaces.

Sources: <http://transit.metrokc.gov/tops/parknride/parknride.html>,

e. King County Arterial High Occupancy Vehicle Program

King County's Department of Transportation, Transportation Planning Division, undertook a comprehensive study concerning arterial High Occupancy Vehicle (HOV) facilities and programs. The purpose of the study was to develop an integrated program of arterial capital improvements and associated policies to support and promote transit use and ridesharing in King County. The HOV plan was adopted in 1993 and is the County's current adopted policy on HOV improvements.

The Arterial High Occupancy Vehicle Plan has followed the policy of King County's comprehensive plan – encouraging efficient transportation facilities and services. The goal of the County's HOV program is to increase the average occupancy of vehicles using the County's roadway system in an effort to move more people in fewer vehicles. Installation of HOV facilities and related Transportation Demand Management programs provides incentives for the traveling public to use transit, rideshare, or other travel alternatives. Incentives are often in the form of travel timesavings and / or reduced travel cost. Increasing the Average Vehicle Occupancy (AVO) through HOV measures results in improved traffic flow reduces the need for expansion of the roadway system.

The study focuses on implementing HOV improvements on arterials and integrating King County improvements with Washington State's current and planned HOV facilities. It discusses HOV warrants and treatments that suit urban and suburban arterials and that must consider access to property as well as mobility. Finally, the study recommends criteria and guidelines for the consideration of arterial HOV improvements. Since adoption of the HOV plan, the region has passed a ballot measure approving the regional transit authority or Sound Transit.

E. Transportation Demand Management

The Commute Trip Reduction Law, Chapter 202, 1991 Laws of Washington, requires local governments within the largest nine counties in Washington to develop programs and implement actions to reduce single-occupant commute trips. The CTR legislation requires cities and counties with large employers (100 or more employees arriving at the worksite between 6 and 9 a.m.) to adopt ordinances that require these employers to submit and implement trip reduction programs. The County and cities within King County adopted ordinances beginning in 1992. There were 17 jurisdictions affected by CTR requirements in 1991. There are currently 21 affected jurisdictions in King County. Two of these are now or will soon be adopting ordinances. In 1997 the law was amended to extend its requirements from 1999 to 2005. Minimum requirements of the law are:

- Commute trip reduction goals for vehicle miles traveled per employee are 10 percent in the first two years, 20 and 25 percent, respectively for the fourth and sixth years, and 35 percent by the final measurement year (2005, or the 12th year after implementation)
- Measurements are gauged against levels in surrounding CTR zones or against base values for the worksite at the choice of the employer
- Designation of a transportation coordinator, distribution of commute option information, filing of annual reports and biannual surveying, and implementation of measures designed to achieve goals
- CTR programs for cities and counties having large employers, whether or not the jurisdiction has more than 100 employees
- A review of parking ordinances
- An appeals process to resolve disputes about major employer programs

A state task force with 28 members is charged with establishing guidelines to effect implementation of the law, make recommendations for changes to the law, and report progress to the legislature. Considerable effort has been put into coordination of the CTR ordinance implementation and policies across the state and among jurisdictions as required by law. The Executive and the Council have placed a high importance on CTR programs, recognizing that such programs will positively affect the County's ability to improve roadway level of service standards without expensive capital projects and to reduce air pollution while lowering energy cost for its citizens.

King County Metro Transit's Market Development group has made several strides towards integrating and customizing CTR and other TDM programs. New approaches including new facilities such as bike lockers, car share programs like FlexCar, and adapting their employer-based TDM strategies to the community or neighborhoods themselves.

Sources:

<http://transit.metrokc.gov/prog/employer/empcommute.html>
<http://www.metrokc.gov/kcdot/alts/employer/index.htm>
<http://www.bikestation.org/seattle/index.asp>
<http://www.flexcar.com/>

Between 2003 and 2006, a Smart Card system is being deployed in the four-county, Puget Sound Region. This electronic debit card will allow users of buses, ferries, and trains in any jurisdiction or service district to permit "customers to use one fare card on multiple systems throughout the four county Central Puget Sound area." This initiative is truly regional and its implications will affect urban and rural King County's mobility and TDM programs in the future.

Sources:

<http://transit.metrokc.gov/prog/smartcard/smartcard.html>

F. Nonmotorized Transportation

King County's Nonmotorized transportation programs operate under the title RoadShare. RoadShare considers both the recreational and alternative travel values of a comprehensive nonmotorized network. RoadShare was created in 1987 to promote nonmotorized transportation elements of the overall County transportation system. The program is

responsible for planning, coordination, outreach, and public participation activities related to this mission.

1. Planning

RoadShare is responsible for the development of the King County Nonmotorized Transportation Functional Plan, which replaced and expanded upon the 1974 King County General Bicycle Plan. This functional plan established service and facility standards, program recommendations, and research areas relating to the specific needs of bicyclists, pedestrians, and equestrians on the County road system.

RoadShare is also involved in the annual review of projects contained in the annual Transportation Needs Report (TNR). Currently, approximately one half of TNR proposed projects contain some nonmotorized element.

RoadShare annually participates in the review of candidate projects for the Department of Transportation Maintenance Section's annual Overlay Paving Candidate List. This review identifies nonmotorized transportation system deficiencies correctable through regular road maintenance procedures.

Other planning activities include the following:

- Plans, studies and project review
- CIP project and development review
- Zoning Code and other relevant ordinance changes/review

2. Public Information

Realizing that public information is an important element of RoadShare's overall success, King County places a heavy emphasis on outreach programs such as the Seattle Bike Expo and the Annual Pedestrian Safety conference.

3. King County Bicycling Guide Map

This document serves two purposes. First, it provides data on road conditions relevant to bicyclists in an easy to understand manner on a network, which includes all of the municipalities of the County, as well as the regional trails network. Second, the network represented on the map serves as the basis for bicycle facility planning and project priority decisions within the Nonmotorized Transportation Functional Plan. The Bicycling Guidemap can be found on the Department of Transportation's website at <http://www.metrokc.gov/kcdot/tp/bike/bikemap.htm>

G. Washington State Highways

Information on the State Highway system can be found on the WEB page for the WSDOT Planning and Programming Service Center, Transportation Data Office (TDO) at <http://www.wsdot.wa.gov/mapsdata/tdo/>

The TDO is responsible for collecting, processing, analyzing, and disseminating transportation data pertaining to the Washington State highway system, including: traffic collision data, traffic counts, travel analysis and traffic forecasting support, an online highway data system, and a database of 80,000 miles of Washington State public roads.

H. Transit

1. Metro

Transit services in King County are provided by four public transit agencies. King County Metro Transit provides the vast majority of regular bus service and general public demand responsive service ("Dial-a-Ride") available to King County residents. Pierce Transit and Community Transit provide commuter bus services into King County urban centers including downtown Seattle, downtown Bellevue, and the University District in northeast Seattle. In 1988 Sound Transit (the Puget Sound Regional Transit Authority) began implementation of all-day express bus services primarily concentrated in the east and south King County areas. These services are part of phase-one service implementation plans for a three-county system of express bus, commuter rail, and light rail services to be fully operational by 2006.

Metro operates a fleet of about 1,300 vehicles, including standard and articulated coaches, electric trolleys, dual-powered buses, and streetcars. This fleet serves an annual ridership of more than 95 million within a 2,128 square mile area. All Metro buses have wheelchair lifts and all routes and trips are accessible to riders who are disabled. Metro provides paratransit van service and a taxi scrip program that provided over 1 million passenger trips in 1999.

Metro operates the largest publicly owned vanpool program in the country. More than 700 vans make about 3 million trips per year. More than 5,000 people use those vans every day, eliminating about 4,500 vehicles from area roads. The regional ridematch system helps commuters form and sustain new carpools and vanpools in seven counties by matching names in a computer database.

See Attachment D for references to Metro capital facilities and services.

2. Central Puget Sound Regional Transit Authority (Sound Transit)

In 1996, voters in the urbanized areas of King, Snohomish and Pierce Counties approved *Sound Move*, the Sound Transit Master Plan. *Sound Move* is a 10-year program that will see the implementation of new regional express bus, commuter rail and light rail services. Sound Transit's services are considered high-capacity transportation (HCT) services that carry large numbers of people faster and more frequently than a basic, conventional bus system. To accomplish this, buses and trains usually need to run in their own rights-of-way, separated from general traffic.

Sound Transit services will be integrated with the local bus routes operated by King County Metro so that all services support and complement each other. A 1998 Memorandum of Understanding (MOA) between the two agencies established the basic principles under which a coordinated system will be planned and operated. The MOA describes the general working relationship between Sound Transit and King County. It supports the vision of a seamless, easy-to-use system of regional and local services and the framework for subsequent agreements between the County and individual Sound Transit lines of business (regional express bus, commuter rail and light rail).

As of July 2003, the Sound Transit rail system has been held up by concerns centered upon the cost of the alignment or right-of-way itself. The proposed system from 1996 will potentially be built in three stages from Northgate to Seatac via Downtown Seattle. However, it should be noted that any construction start of any segment is currently in a holding pattern due to pending legal cases against Sound Transit itself and from the

perspective of the constitutionality of ballot initiatives that have stripped the service district of funding. Finally, US Congressional appropriation of a \$500 million grant from the FTA will decide the fate of Sound Transit's light rail system.

Recently, progress has been made to establish the long-delayed commuter rail service Between Tacoma and Seattle. Service to Lakewood and Everett are expected to commence in late 2003 following operating and leasing agreements with the BNSF Railway. Service will run in both on and off-peak directions.

More information on Sound Transit can be found at the following website:

<http://www.soundtransit.org>

<http://www.soundtransit.org/sounder/RiderInfo/SdrFacts.htm>

<http://www.soundtransit.org/linkrail/linkrail.htm>

<http://www.soundtransit.org/stexpress/stexpress.htm>

3. The Seattle Monorail Project

Seattle voters in November 2002 passed a ballot initiative to construct a monorail line and eventually system throughout Seattle. The first line labeled the Green Line is in its planning stages and bidders are being selected to Design-Build-Operate-Maintain the system. There are regional and countywide implications for this project. Two groups have sought to construct regional or more freeway-based monorail systems as a way of serving a broader geographical area. As the Puget Sound region has learned with Sound Transit and even Metro Transit, implementation of a rapid transit right-of-way is a lot more difficult than it sounds.

More information on The Seattle Monorail Project can be found at the following websites:

<http://www.elevated.org/>

<http://www.freewaymonorail.org/>

<http://www.kingcountymonorail.org/>

I. Rail Facilities

A complete description of the existing railroad facilities, abandoned right-of-ways, Amtrak service levels, passenger traffic volumes, and freight data provided in King County is available in the Statewide Rail Passenger Program Technical Report (January 1992) and the Washington State Freight Rail Plan. These reports authored by the Washington State Department of Transportation, Planning Research and Public Transportation Division, identify rail facilities statewide. Inventory information in this document is based on (1) field reconnaissance; (2) railroad track charts, and (3) other documentation of conditions that relate to passenger and freight train operating speeds such as:

- Track alignment and configuration,
- Locations and lengths of double track segments and passing sidings,
- Weight, age, and condition of the rail,
- Super elevation provided on curves,
- Type of signal system,
- Type (i.e. speed capabilities) of turn outs and crossovers,
- Grade-crossing locations and the types of grade crossing protection provided, and
- Authorized maximum speeds and the reason for the existing speed restrictions.

Additional information from the PSRC on freight can be found at the following web site:

http://www.psrc.org/datapubs/pubs/publist/publist_freight.htm

ATTACHMENT A

AIRPORTS IN KING COUNTY

As of July 2003 there are 12 public use airports in King County, as follows:

Commercial Passenger Service

Sea-Tac International

Reliever Airports

Auburn Municipal

King County International Airport/Boeing Field

Renton Municipal

General Aviation Airports

Bandera State *

Crest Airpark

Lester State *

Skykomish State *

Vashon Municipal

** Airport is owned by State of Washington*

Seaplane Bases

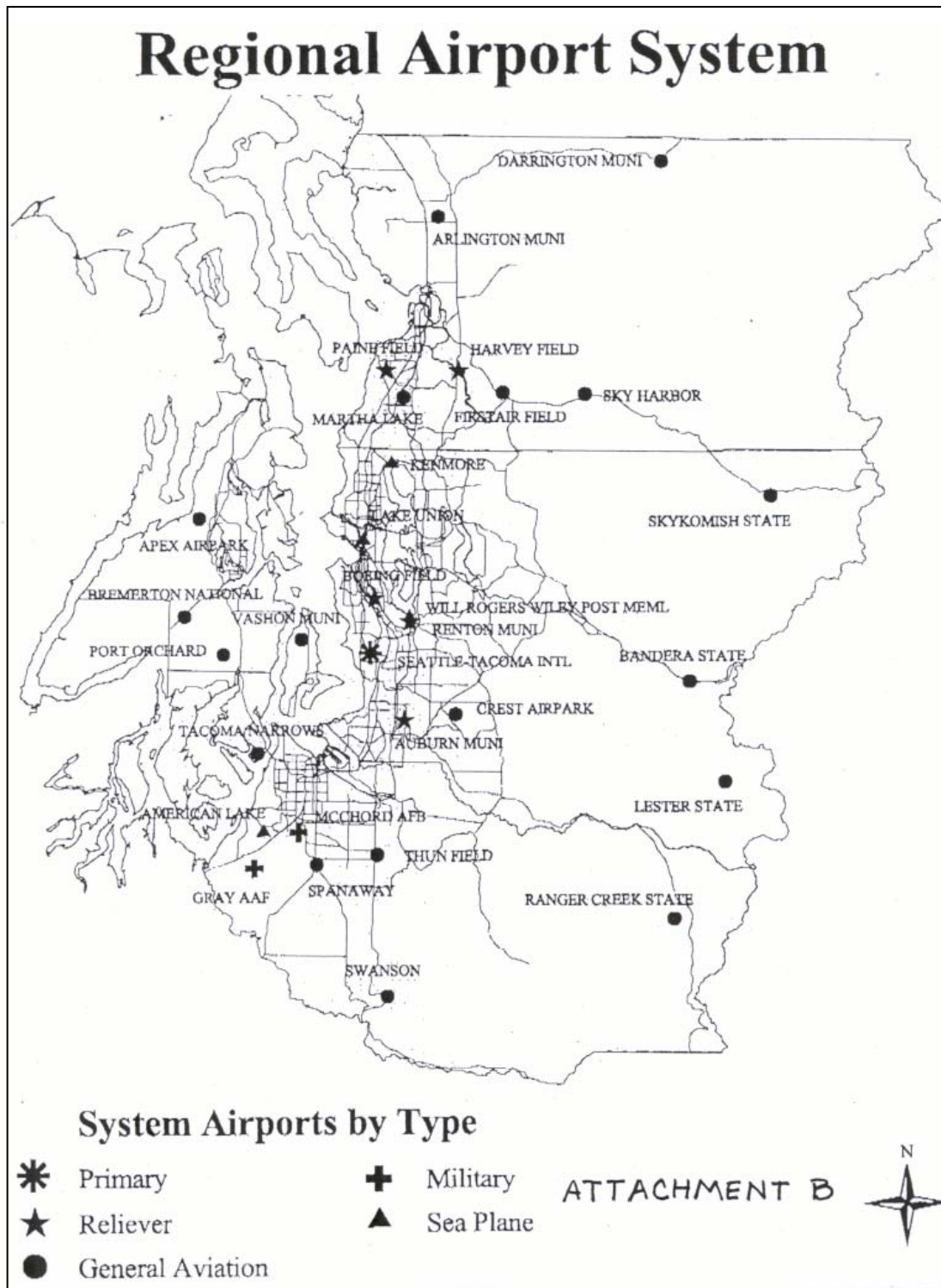
Kenmore Air Harbor

Lake Union Air Service

Will Rogers/Wiley Post Memorial

ATTACHMENT B

REGIONAL AIRPORT SYSTEM MAP



ATTACHMENT C

TRANSIT FLYER STOPS & TRANSIT ORIENTED DEVELOPMENTS

1. SR-520 & Montlake Blvd East
2. SR-520 & 92nd Avenue Northeast
3. SR-520 & Evergreen Point Floating Bridge
4. I-405 & North 30th (Renton)
5. I-405 & Northeast 70th Street
6. I-405 & Northeast 132nd Street
7. I-405 & Northeast 160th Street
8. I-405 & Southeast 8th Street
9. I-405 & Coal Creek Parkway
10. I-405 & 112th Avenue Southeast
11. I-5 & Northeast 145th Street
12. I-5 & South 272nd Street
13. I-5 & SR 516
14. I-5 & Northeast 45th Street
15. I-90 & Island Crest Way
16. I-90 & 23rd Avenue South / Rainier Avenue

TRANSIT ORIENTED DEVELOPMENT

Completed

- Northgate North
- Renton Transit Center
- The Village at Overlake Station, Redmond

Under Construction

- Kent Sound Transit Garage
- The Gilmore (Doces Building), Seattle

Developer Selected

- Denny Triangle Green Streets, Seattle
- Kent James Street
- North Kingdome Lot, Seattle
- Olson-Myers, Seattle
- Tashiro-Kaplan Building, Seattle

Feasibility Studies Under Way

- Brickyard, Unincorporated King County, near Bothell
- Convention Place, Seattle
- Federal Way
- Kent Municipal Parking Lot
- Kenmore Park-and Rides
- Kenmore
- Northshore
- Northgate Transit Center

- Shoreline
- South Kirkland, Bellevue/Kirkland
- Tukwila – Sound Transit Commuter Rail
- U-District Layover, Seattle

Discussions Under Way

- Issaquah Highlands
- Kingsgate, Kirkland, Totem Lake
- Kirkland CBD
- North Lake Union, Seattle
- Redmond CBD
- Woodinville

ATTACHMENT D

METRO REFERENCE FOR CAPITAL FACILITIES AND SERVICES

1. Regional Transit Project Metro HOV/Busway Planning, 2010/2020 No-Build Alternative Draft Final Report, ICF Kaiser Engineers, December 1990.

The No-build Alternative consists of the 2010 background roadway network. It includes the budgeted portion of the Washington State Department of Transportation's (WSDOT) HOV Program. The No-Build alternative transit system is the 1991 network including all services and capital facilities for Metro, Community Transit, and Pierce Transit.

Available: Sound Transit 206/398-5000

2. Puget Sound Regional Council, Park-and-Ride Lot Inventory: Puget Sound Region, (1996).

An inventory of publicly-operated park-and-ride lots within the Puget Sound Region of Island, King, Kitsap, Pierce, Snohomish, and Thurston Counties.

Available: Puget Sound Regional Council 206/587-4825

3. King County/Metro Service Development Division, Metro Passenger Shelters, King County Metro

Lists and maps over 1,400 passenger shelter units at various locations within Metro's service area. Reports on sites with engineering drawings available in Design and Construction's records storage.

Available: King County Metro Route Facilities Section 206/684-3404.

4. King County Department of Transportation, Quarterly Park-and-Ride Lot Utilization Reports, Metro

A quarterly report that provides complete utilization information for all permanent (major) park-and-ride lots within Metro's service area, as well as partial utilization on the leased lot program and the smaller WSDOT lots.

Available: Transportation Planning Division 206/263-3583

5. King County/Metro Transit Division, The Book, Tri-annual publication, Metro.

The Book is published during February, June, and September for Metro service changes. It contains changes to the policies, procedures, route descriptions, signage, maps, and other instructions.

Available: Metro Operations Division 206/684-1656

6. King County/Metro Transit Division, Transit Resources Analysis Model (TRAM), Metro.

The TRAM is an ad hoc reporting system for tracking ridership, services hours, bus trips, mileage, and productivity at the route level.

Available Service Implementation Section 206/684-1640

7. King County/Metro Transit Division, Public Transportation Vehicle Roster, Metro

The Public Transportation Vehicle Roster provides an inventory of buses operated by Metro including the fleet number, make, model, serial number, number of seats and wheelchair capacity.

Available Revenue Vehicle Contract Management 206/684-1640

8. King County Department of Transportation, 2000 Transportation Budget.

The 2000 Transportation Budget contains sections on transit capital and operating improvements pertinent to comprehensive plans.

Available: Transit Budget and Finance Section 206/684-1919.

9. King County/Metro Transit Division, Transit Speed and Reliability Six Year Plan Update (2001-2006), June 1999.

Lists Transit Speed and Reliability current and planned projects in the King County Region.

Available: Speed and Reliability Section 206/263-7387

10. King County Metro Transit Division. Transit Operating Facilities Strategic Plan, October 1999, Metro Transit.

The plan lists existing bus base facilities and provides recommendations for meeting projected bus base capacity demand from 1998 through 2020 and beyond.

Available: Metro Transit Power and Facilities 206/684-1846.

11. King County Department of Transportation, 2002-2007 Transit Development Plan (Year 2000 DRAFT).

The six-year transit development plan outlines how the County intends to meet state and local long-range priorities for public transportation, capital improvements, significant operating changes planned for the system, and how to fund program needs.

Available: Currently under development.